PROFESSIONAL ENGINEER

Official Publication of American Association of Engineers

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Phoenix Chapter, A.A.E., Performs a Public Service . . .

T TO RIGHT: Jim Parker, retired district engr., Arizona Dept. Highway; Overstreet, (Phoenix Chapter President), Asst. County Engr., Maricopa ty; Dario Travaini, (past Chapter President), Supt., Sewers & Water, City hoenix; Earl Parker (brother of Jim above) retired engineer, Arizona State er Comm. and oldest living surveyor in Arizona: Hanen Williams, holding b bob, Consulting Engineer; Dan Wier, at transit (Phoenix chapter secretary) engineer with Holmquist Cons. Engr., Phoenix; Harry E. Jones, consulting neer and surveyor, (Past Chapter President): Frank Hall, retired civil engi- Standard Oil Co., (past Chapter President), Leigh Gardner, consulting engi- firm of Yost & Gardner, Phoenix.

Vol. 42 No. 2

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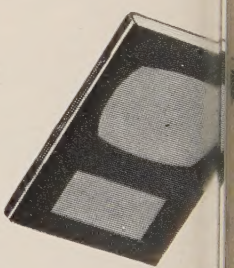
By WILLIAM S. LA LONDE, Jr.

Licensed Professional Engineer; Chairman, Department of Civil Engineering, Newark College of Engineering



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M. E. McIVER, Editor

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1945—1957

A Young Lady Speaks

A very young lady, from her rocking chair, delivered an eloquent editorial w
was published as a frontispiece in the March, 1945 issue of PROFESSIONAL ENGI
Some of you will remember it. She was not quite a year old at the time, so a
deal of her message had to be inferred from her smile. It was potent enough to
tidings of her utter delight with a world that some of us considered pretty stale
and unprofitable.

That same little girl is now a high school student. She still has the infe
smile, but she is articulate in other ways. Here is her new message—and old ti
who remember her delightful Granddad, Edmund J. Fitzmaurice, now a Nat
Director, will take special pleasure and pride in her words.

Hello Folks! Here I am again in 1957 and just entering high-school.

Remember how my Grandpop Fitzmaurice was working hard for A.
when I was rocking away in my little chair, smiling at this old world I
to live in!

Since then I have begun to realize the great work that A.A.E. has
doing for the Engineers, and I mean all of you youngsters, (you se
chat with my Grandpop)—who would have been struggling for a de
job if it had not been for the tireless efforts of all those good peopl
A.A.E., at National Headquarters, and in various parts of the country du
these past many years.

You were willing to accept all of their help and hard work in your be
but what have you done for A.A.E. to show your real appreciation?

Don't you think it would be fair and nice for you to start right now
show them in some concrete form that you are willing to do YOUR par
your profession! Join A.A.E. Start a student chapter in your colleg
university!

Mary

Principles of Ethics and Courtesy in the Employer-Employee Relationship

Canons and codes of ethics formulated by professions and by business and trade organizations include rules of conduct as compulsory and fundamental as the laws of human behavior stated in the Ten Commandments. Unlike the Ten Commandments, which are fairly explicit, codes and canons of ethics consist of broad principles or ideals which individuals and groups interpret as they seem applicable in particular situations. Because of the wide variance in interpretations, some of the broad principles have been defined in more specific rules of professional conduct.

It is still not entirely practicable to set forth explicitly rules which govern all the reciprocal obligations of members of professions which arise from the employer-employee relationships. From the vantage point of the engineering society's service department, a great many ethical shortcomings of employees and employers are observable.

Some of these deficiencies are at odds with major principles of the canons of ethics, to which members of professions, through their identification with societies, subscribe. Other deviations suggest that the offenders have not read or understood "the fine point"—the explicit rules stated in "specific principles of professional conduct." In an even larger number of cases, the charge should be "discourtesy" rather than unethical conduct.

Engineering Society personnel services, operated on a non-profit basis and wholly for the benefit of employers and engineers, are due courtesy, sincerity, cooperation, and consideration from both employers and employees in all their dealings. When clients fail in these obligations, the placement service is often embarrassed. If one engineer-applicant, referred by a replacement service, is dishonest, negligent, or discourteous, he may ruin a contact which would otherwise be of great value to the engineering personnel service in future negotiations.

High on the list of those who embarrass professional personnel services are the applicants who negotiate briskly and in apparent good faith for positions which they have no intention of accepting. All that this type of nuisance wants is an offer from a competitor of his employer which he can cite in justification of his demand for a raise. He callously wastes the time of the placement secretary and of the personnel officer who interviews him, verifies and evaluates the claims set forth in his application. He may cheat some other registrant of the placement service, who really needs the position or a chance at it, or he may cause the employer to pass up another good applicant. Deceit is the element here

that constitutes the difference between discourtesy and a violation ethical principles.

Engineers who fail to notify the personnel service that they are longer applicants for positions and those who simply do not report f interviews arranged for them create unhappy situations. Negligence this kind, whether it be considered a deficiency in courtesy or a violati of principles of ethics, is deplorable. It can cost the personnel servi valuable contacts—destroy the confidence and good will of an employ who has made generous use of its facilities.

Every engineer applicant referred to an employer by a profession personnel service is an involuntary representative of that Society Servic His posture, his voice and enunciation, his grooming, his mannerisms, h whole attitude, in some degree at least, enhance or damage the presti of the Service which refers him to an employer. In this way they increa or curtail the Society's opportunity to help other engineers in the futu That fact ought to be apparent to applicants, but it is not. A counsel must often remind candidates that technical proficiency is not enou

Deviations from principles of ethics and deficiency in courtesy are n exclusively chargeable to engineers. Personnel officers and other exec tives of organizations which employ engineers are sometimes quite ca lous in observance of the civilities—sometimes heedless of ethical cons erations. They apparently have no conception of the cynicism which th lack of consideration breeds in applicants.

Tutored in student chapters by the schools and by the engineering s cieties, young graduate engineers embarking upon their careers a shocked by auction block bidding for their services and the encourag ment they receive to snatch at a better offer after they have virtua signed up with one company. They are confused by the advertising some of the larger corporations in which great banners proclaim th willingness to hire engineers with only two years of college training fabulous salaries, salaries better than those paid engineers in simil positions with several years experience. They are disillusioned when th apply for these positions and discover that they are eligible only f something at a much lower salary. They begin to question the validity major laws of ethics, too.

In the Service Department of the American Association of Enginee we find that the greatest grievance is negligence on the part of the lar corporations (and some smaller companies) in the matter of notifyi applicants of the company's decision. These companies ask engineers come in for one or more interviews, which may be awkward if the app cant has to take time off from work. They usually ask the applica to send in a detailed summary of his training and experience. In doi so he may include documents which should be returned to him after

ecision has been reached. We have handled cases where it was necessary or the employment service to inquire about the decision weeks, or even nonths after the applicant has, at the request of the company, filed a full tatement of his qualifications. Daily expecting an announcement from ne company of its decision, the employment service and the applicant nust hold in abeyance investigation of possible openings in other companies. Even when the employment service by direct questioning learns nat the candidate has been rejected, it sometimes takes weeks to induce ne organization to return the applicant's papers.

Despite the tacit understanding that applications are handled confidentially, many young engineers find that news of their tentative investigation of openings in other companies "leaks" to their employers. Luncheon conversation and chit chat at clubs sometimes drops to the level of gossip. A great many young engineers become skeptical of the good faith of executive engineers when a matter they considered confidential is carelessly aired where it will do harm.

Finally, in their desire to avoid "pirating" each other's engineering talent, employers in certain areas have entered into a "gentleman's agreement" which employee engineers consider vry unfair. Even though a more congenial, lucrative, or promising position is open in another company, the engineer is virtually frozen on his job. He cannot be considered by a firm which is a competitor of that which employs him if a "gentleman's agreement" exists between them. It also deprives him of the leverage which an offer of a better position might provide in his request for a promotion or higher pay where he is employed. A great many engineers regard the whole plan as hypocritical and unethical.

If established engineers hope to win from the next generation of engineers whole-hearted adherence to our canons of ethics, they must show more consideration to potential employees, and in following such rudimentary rules of courtesy as those that ideally govern handling of applications for employment, demonstrate their own allegiance to ethical principles.

Is the bloom off the peach?

Industrial Relations Division, AAE

The American Association of Engineers through its personnel and industrial relations department has noticed a gradual downward trend in engineering positions during the past few months. Employers are a little more particular, and the supply is a little greater than it has been during the past few years.

Older, experienced engineers are finding it a little difficult to re-locate, and while there is a great demand for the well-grounded young engineer,

salaries seem to have dropped somewhat and overtime generally is a thi of the past.

That we seem to have the right picture is evidenced by the many ne articles appearing from time to time in the nation's press.

Gordon McKibben, staff reporter of "The Wall Street Journal," its issue of July 31, 1957, reports at length as to the engineering emplo ment situation in California with special reference to Downey. We shou like to reprint the article in full for the information and study of enginee but space does not permit, so we shall reprint only excerpts.

"Not everywhere," says Mr. McKibben, "to be sure, but there a some definite signs the demand for slide rule operators is easing. A perhaps more meaningful, events in this Southern California town sh how quickly a shortage can become a surplus. The situation that's emergi here—engineers actually walking the streets in search of jobs—is little sh of amazing in an era accustomed to think only in terms of a 'criti engineer shortage.'

"Here's what happened in Downey. On July 10, in an economy mo the Air Force suddenly canceled the Navaho guided missile project which more than half a billion dollars has been spent over an 11-year sp North American Aviation's Downey plant had been the work center the Navaho, and the reaction was swift; layoff orders for 12,000 work including more than 1,000 engineers. More than half these employ already are off the jobs; others will be laid off in coming weeks.

"Though the engineers are a minority among those discharged, th have had some of the greatest trouble finding new jobs. Some just pl haven't been able to find work hereabouts. Others have taken what th term 'insulting offers' of $600 a month or $100 to $200 less than they h been making. Still others, in a situation faintly reminiscent of depressi days, are considering abandoning their profession for sales jobs.

"The engineer layoffs came atop an earlier stritch-out in the aircr industry that ended overtime on Government contracts and pared the tak home pay of thousands of Southern California workers. Overtime red tions and small cutbacks in employment so far in 1957 have reduced t earnings of Southern California's 278,000 aircraft workers by an estimat $1.5 million to $2 million a week.

"So North American is by no means the only company whose thi for engineering skill has diminished. Douglas Aircraft concedes it is n 'a little more selective in picking engineers.' Lockheed declares its hiri of such talent is 'very considerably reduced from this time last year, large because we've completed much of our design and engineering work existing projects.' These firms are neighbors of North American, b similar situations are emerging on the opposite side of the nation."

Reporter McKibben then gave a brief picture of the engineering e ployment situation in the East to show a similar condition there. Althou some employers report, and this is in accordance with our own findin

it there is always a place for the well-grounded, experienced, and "up-date" engineer, who is aggressive, has ability to direct, and vision to be with the fast-moving, changing technological world in which we e.

"Over-specialization has handicapped some job-seeking engineers," ys Mr. McKibben. "An aircraft company spokesman explains that mis-es are highly specialized weapons requiring particular knowledge. 'Engi-ers pick out one speciality, like servomechanism, and devote years to rking on one little phase of one project.' When the project blows up, e the Navaho, the engineer suddenly finds himself almost useless for st jobs, at least until he can adjust himself. . . .

"In all likelihood many laid off North American workers would have ch less trouble finding new jobs if they were more willing to move to me other part of the country. Out of state concerns often offer com-rable or even higher salaries to Navaho project workers willing to re-ate, and out of state recruiters jumped at the chance to set up shop on North American parking lot. But so far a good many of the engineers, n the jobless ones, are stubborn about moving." . . .

Of course, as we so often find in our negotiations with engineers in Service department, engineers have an investment in a home recently rchased, their families have been more or less rooted to a particular loca-n, and moving to another town is expensive and not looked upon with or. However, that is generally the lot of the engineer; sometimes he st make the move in order to better his future prospects.

In his article Mr. McKibben touched on a point that has been em-sized by A.A.E. over the years, and particularly during the past few rs, and that is: "No matter how attractive a job opportunity might seem young engineer, it is not wise to leave school to accept it simply because uts dollars in his pocket NOW. Good judgment dictates that a college ree in engineering is paramount now and in the years to come for a cessful engineering career.

Note what Reporter McKibben learned during his interviews. "The outlook is especially bleak for so-called engineering technicians who an engineer's work, get an engineer's pay, but don't hold college engi-ring degrees.

"During the years of the engineer shortage, and fatter aircraft con-ts from Uncle Sam, many companies filled engineer-type jobs by hiring with two or three years of college work or by promoting non-college from within their own shops. These men today don't interest re-ters who want both an academic degree and on-the-job experience."

And so we say to the young student engineers who will be the engineers morrow: Get all the education you possibly can in college, work hard, n something of the business problems of the profession, the market for neering services, take an active interest in campus activities—when you duate be a well-grounded, well-informed engineer, capable of assuming responsibilities of your profession.

Here and There with Our Members

The editor is always glad to hear about the activities of the membe of American Association of Engineers and once every year would lik to devote an issue to their special interests, hobbies, civic activities special professional duties, so send us clippings, news-items or pe sonal notes, together with photographs.

Photo Courtesy of the Birmingham, Ala., Post-Herald

The Henry Bakers

We publish this article and photograph of Henry Baker, Jr., and h pretty wife Lena, because we believe that his many friends in the America Association of Engineers will enjoy "meeting" them again through t columns of PROFESSIONAL ENGINEER.

Mr. Baker joined A.A.E. when he was a student at the Universi of Alabama. He graduated in 1928 with a chemical engineering degre and in 1931 married Lena Lee, and spent part of his honeymoon at t Huntington, W.Va., convention of A.A.E. He has served the Associati as a National Director.

Henry Baker is an experienced and most capable mediator n serving as commissioner of the Federal Mediation and Conciliation Servi at Birmingham. The photograph and front-page story by Jim Stricklan we publish here, appeared in the August 6, 1956 issue of the Birmingha Post-Herald, and shows conclusively that the work of a conciliator in labo management relations these days is interesting but indeed time-consumin

"Referee, chairman, peacemaker and husband late for supper are a few f the roles Henry G. Baker, Jr., has played the past three months.

"As commissioner of the Federal Mediation and Conciliation Service ffice here, Baker had the job of presiding over all negotiations between ie Brotherhood of Locomotive Firemen and Enginemen and the Tennessee oal and Iron Division of U.S. Steel.

"The Brotherhood signed with TCI Friday after 98 days of picketing id negotiating.

" 'Just another day's work,' is Baker's description of the negotiations, ren though he admits 'It's the longest strike I can remember.'

"The mediation service entered the picture late in April, he said, with nferences on both sides of the fence. A conference on the night of April in Baker's office ended in a deadlock, and the strike was on.

"Mediation is largely a matter of 'playing it by ear,' according to Baker. he FMCS investigates labor squabbles to see if their help is needed and they have jurisdiction. Sometimes the state mediators can take over or e difficulties can be ironed out without help. 'Once a mediator has thority to go into a dispute, he's on his own,' said Baker.

"Meetings can be called whenever it is felt they will do some good. 'We y to bridge the two sides,' he said. 'We can't make any public recom- endations of our own, but we can make suggestions on what the current ends are. If a company gives four paid holidays when seven are standard that industry, we don't say they should give seven, but we do point out e trend.'

"Such trends are evident in wage increase, number of holidays, length vacations and other contract clauses, according to the Commissioner, but arge amount of research must precede a negotiation 'to see what's going and to keep up with it.' The first step in negotiating is 'to get both les in agreement as to what the dispute actually is. We find out the differ- ces before we start.' Then follows a series of meetings in which 'Each e has to convince the other of their position.'

"Baker said he didn't think strikes would ever go out of the labor- nagement picture. 'It's right that if a person doesn't like a job he'll quit.'

"He spoke highly of arbitration, however, as a tool to head off strikes e to disputes. Arbitration is not effective for negotiating entire contracts, ker said, but ideal for setting differences growing out of the contracts . . .

"In 1935 Baker joined the U.S. Conciliation Service, in Washington, ich in 1947 was renamed the FMCS. One of the 216 federal mediators r the country, he returned to Alabama as commissioner of the Birming- n area in 1953.

"Baker served in the Army from 1942 until December, 1945, leaving a lieutenant colonel. He is now a full colonel in the Reserve.

"Just to keep from going stale during lulls in the TCI negotiations, ker handled more than half a dozen strikes, threatened strikes and itrations in Childersburg, Sheffield, Tuscaloosa, and Mississippi."

Benline Competes in Civil Service Examination as Hobby

Last December the New York World-Telegram & Sun carried a sto of interest to engineers, especially members of the American Association Engineers. It reported that Arthur Benline had topped the open compet tive list for construction manager at 100.02% and similar items are carri every time he competes in an examination.

In 1941, the old New York Sun of December 27 reported as follow "It was in the cards for Arthur J. Benline to place high on the open com petitive list for sheriff. Borough Superintendent of Brooklyn for Depar ment of Housing and Buildings, he has taken four topnotch examinatio in the Municipal Civil Service placing no lower than fourth. First, competed in an examination for resident buildings superintendent, Housi Authority, and came out No. 4. Then he took the examination for the pos tion he now holds and came out No. 3. Next he took the examination f administrator of public buildings, public works and came out No. 2. completed the "straight" by attaining No. 1 in the first competitive list ev established for sheriff."

Mr. Benline's taking of civil service examinations was interrupted World War II but he was successful in his application to the Navy C Engineer Corps, in which he was commissioned lieutenant commander. Commander of Seabee and Amphibious Forces units in the Mediterran and the Pacific including the combat assault operations on Okinawa received the Bronze Star and Purple Heart medals among his ten deco tions and was promoted to Captain CEC USNR.

Upon his return to civil life he had to take a reexamination for sup intendent of housing and buildings, Manhattan, and was certified No. He also competed in other examinations for general superintendent a for chief of project planning, both in Housing Authority, for state educ tional institutions engineer and others. He was first on all but one of the lists and second on that one.

He is technical director of the New York State Building Code Co mission, since he was granted leave from the Department of Buildings 1952. He is a licensed professional engineer and registered architect several states, a member of many technical societies including the Americ Association of Engineers and president of Building Officials Conference America. He considers that the taking of civil service examinations good practice and keeps him up to date with engineering techniques b does not want any of the jobs for which he competes. He is looking f the next notice of a difficult examination. Quite an unusual and most lik able man of which engineers and engineering societies in general can proud.

is Arthur Richards' little six-room house for which he drew all the plans and fications, hired the six different contractors, or trades to do the various kinds ork, supervised the construction and all details. He moved into the house months after the starting date. Location: Larchmont, N.Y.

Dr. Steinman Receives Medals

Dr. David B. Steinman, internationally famous bridge engineer, has awarded the J. Lloyd Kimbrough Medal by the American Institute of Construction, for his outstanding contributions toward public under- ling and appreciation of the aesthetics in steel bridges. Dr. Steinman lesigned over 400 bridges spread over five of the world's continents, s recognized as a world authority on long-span and suspension bridges. On May 20, the Society of American Military Engineers, at its annual ing in the Mayflower Hotel, Washington, D.C., presented the George Goethals Medal to Dr. Steinman for his achievements represented by esign and construction of the Mackinac Bridge, and on June 14th the neering Institute of Canada will present the Gzowski Medal to this ent bridge builder, during its annual meeting to be held at Banff Springs l.

On March 30 the Musician's Club of America presented its premier guished American award to Dr. Steinman, and the Colorado's Hall mous Americans has recognized Dr. Steinman's poetry and his bridges taneously by electing him for inclusion in the Colorado Pioneers' of Famous Americans especially for his achievement of the notable e at Mackinac and for his poem "The Bridge at Mackinac."

Dr. Steinman is an Honorary Life Member and former president of merican Association of Engineers. He is the author of the Associa- "Vow of Service," which is so well received by engineers everywhere.

Arizona CSI

Norman Blair, who served as president of the Phoenix Chap A.A.E. in 1954, was chosen temporary chairman of the newly organ Arizona Chapter of the Construction Specifications Institute. Ha Smith, Phoenix manager of Gladding McBean & Co., was elected secret treasurer.

The Arizona CSI group, jointly with the Central Arizona Chap AIA, has recommended a course in Specification Writing at Arizona S College at Tempe.

Phelps Retiring from Council

Harlow D. Phelps, member of the American Association of Engin for many years, and actively connected with its Phoenix Chapter, has tired from the Tucson City Council, bowing out as a candidate for a fo term. Mr. Phelps, an engineer, has represented Ward 2 for three t year terms, but would have been in Ward 1 this year had he decided to reelection on the Republican ticket.

Overstreet Appointed Highway Engineer Maricopa County, Ariz.

Cecil C. Overstreet, Assistant Maricopa County Highway Eng since 1953, has been appointed County Highway Engineer to succeed Glendening who resigned to join the Portland Cement Association. Overstreet was City Engineer of Prescott from 1943 to 1953, and to that was area engineer with the U.S. Forest Service for ten years 1956 Mr. Overstreet served as President of the Phoenix Chapter, Amer Association of Engineers.

J. H. Kraft with F. H. McGraw

J. H. Kraft, formerly with H. K. Ferguson's New York office, since March 1956, with F. H. McGraw & Company as chief of the de division, New York, was photographed with several other engineers recent issue of the company's magazine "Plans and Projects," a most formative and attractive house-organ edited by Robert F. Kane.

In addition to being an excellent engineer, Joe Kraft has written n short stories of the Western type and a series under the title "Gangster the Skies," proving once again that engineers are not as inarticulate as are sometimes supposed to be.

F. H. McGraw & Company has been engaged for 28 years in the e neering and construction business in the United States, and various p of the world. Its engineers handle a multiplicity of functions, an diversity of projects, and their combined experience, which is impor in this aspect, covers a very broad field of engineering work from all k

lants, public buildings, railroads, roads, docks, tunnels, military installa-
s, and atomic projects to special missions and reports to numerous
ign countries.

Clifford S. Strike is president of the Company, Paul F. Pape, Vice
sident of Engineering, and Joel H. Morris, Chief Engineer.

Cups for the Bodey Family

Charles E. Bodey, affectionately known by his many friends as
uck," joined the American Association of Engineers when he was con-
ed with the Minneapolis-Honeywell offices in Minneapolis. Contrary
he usual belief that engineers are inarticulate, this young man knows
ctly what to say, when to say it and how to say it, either in a few well-
sen words, or in a more lengthy message, if the occasion demands.

ight: Charles E. Bodey in action. Left: C. E. Bodey painting a Toast-
naster sign for a special meeting when his Kentwood Club was host to the
Vestchester Club. Center: "Chuck" Bodey with his cups; Norma Jean and
inger with their cups.

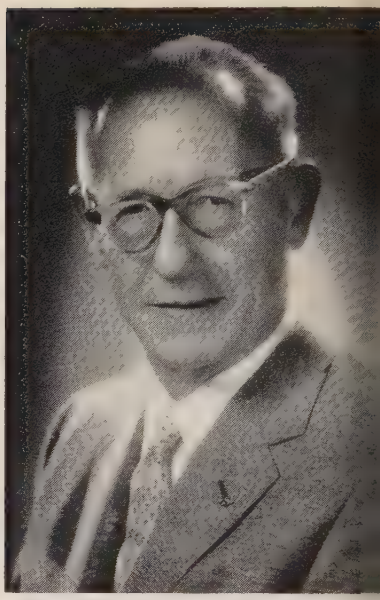
He is a hale fellow well met, a graduate of the University of Minne-
and blessed with an equally fine family, his wife Norma and two
hters. A number of years ago the family moved to Los Angeles, Cali-
a, where he is now well settled in his profession as chief engineer for
hwestern Industries, manufacturers of precision gear-trains and highly
alized hydraulic switches for aircraft and rockets.

He is Sergeant-at-Arms of the Kentwood Toastmasters Club and last
ner was awarded the best speaker award for a "whale of a fish story"
nother cup for the most improved speaker.

Like father, one of his daughters won a cup for dancing, and the
a cup for school activities. His wife Norma is interested in civic
's as well as in the Camp Fire Girls. The Bodeys are a happy family,
in love with California and outdoor life.

John R. Galbraith is now engineer in charge of all construction and inspection for the Down Range Guided Missile Program carried on by the Department of the Navy, Bureau of Yards and Docks. His work takes him from the coast of Florida down to the West Indies, Windward Islands, into Fernando de Noronha and Ascension Islands off the coast of Brazil. His headquarters are at Coral Gables, Florida.

William Marc Burbridge, formerly Safety Director for Manhattan Construction Co., Muskogee, Okla., and Safety Supervisor for Morrison-Knudsen, has spent some time in Cooma, New South Wales, Australia, where he served as superintendent of safety and welfare for Kaiser-Walsh-Perini-Raymond at Happy Jack, where the company is engaged in a large construction project. After leaving that position he traveled to many countries before returning to the States several weeks ago.



Carl E. Schmitz

Vic H. Housholder, director of A.A.E. who recently retired as District Sales Manager, Armco Drainage & Metal Products, Inc., was presented with a new Remington Sportsman '58, 3 shot 12 Gauge Automatic Shotgun, by the Arizona Consulting Engineers. The gift was accompanied by a certificate reading as follows: "To Vic H. Housholder, In Appreciation of the Many Services he has rendered Arizona Consulting Engineers" and signed by twelve consulting engineers and consulting fir

Mr. Housholder has always been tive in under-privileged child we vocational guidance and public affa and of course engineering activit Asked what he was going to do n that he is retired, he replied: "I'm terested and working for the Yo Summer Camp, Salvation Army, which I am chairman. I'm conduct a series of talks on nature study "T World We Live In," each Wednes

Carl E. Schmitz Promoted

Karl V. Rohlen, president of Crane Packing Company, Morton Gro Illinois, a suburb of Chicago, recently announced the promotion of member of the American Association of Engineers, Carl E. Schmitz, Executive Vice President of that Company. Mr. Schmitz was forme vice president in charge of sales.

Mr. Schmitz joined the Crane Packing Company organization in 19 He is a past president of the American Society of Lubricating Engine and a member of many other engineering societies.

Our good wishes for a most successful career go to Mr. Schmitz a to the Crane Packing Company.

ening at Phoenix Boys' Club of which am a director. These activities, plus oy Scouts, Goodwill Industry and my ngineering activities tend pretty well ut not 100%) to keep me out of mis-ief and trouble."

Herbert E. Williams, formerly of Iattoon, Illinois, is now associated ith the American Desk Manufacturing ompany at Temple, Texas, as chief ngineer. The company is one of the orld's largest manufacturers of school, urch and theatre seating. Mr. Wil-ams' duties are to design and develop modern new line of school furniture own as Quadraline and to lay out, ol and place in production this equip-ent in a modern new expansion facil-y. Other duties for the future involve lministering all engineering for this mpany.

Our good wishes for a most success-l career go to Mr. Williams who has en a member of the American Associ-ion of Engineers for a number of ars.

Vernon D. George, Washington, D.C., now one of the vice-presidents of the nteater's Association—No. 1673. The oup meets only in the latter part of ovember and early December, and is rhaps the daffiest eating society in istence, although the Anteater's has come a Washington Institution. Mem-rship cards are carried by Supreme urt Justices, senators, White House aches and the city's leading busi-ssmen.

The piece de resistance at an Ant-er's luncheon is always game—the lder the better, and, in Washington, Anteaters have another special arm—positively no speeches are per-tted.

N.C.S.B.E.E. 1957 Meeting

The 36th annual meeting of the Na-nal Council of State Boards of Engi-ering Examiners will be held in At-.ta, Georgia on October 31, Nov. 1 1 2, with headquarters at the Atlanta tmore Hotel. The annual banquet will be on Friday evening and there will be a Panel discussion on Friday afternoon on various subjects, such as "The Ethics of Engineering Practice and Its Relation to Registration," "The Practice of Engineering Through the Corporate Form of Organization," "Written Examinations," and "The Model Law."

T. Keith Legare has retired as Secretary of the South Carolina State Board of Engineering Examiners. He has served continuously for 35 years. Mr. Legare will continue as Executive Secretary of the National Council of State Boards of Engineering Examiners, which office he has held for more than 33 years.

Obituaries

It is always sad to report the death of a member, especially one who has been a staunch supporter of the aims and objectives of the Association for as many years as had William C. Hogoboom, of Los Angeles, Calif., formerly a director of the Association.

Charles J. Ullrich of Salt Lake City, another staunch supporter of A.A.E., former director and President, as well as active member on many committees, passed away during this fiscal year.

Mr. Ullrich was perhaps the outstanding engineer in the country on registration for engineers and took an active part in the formulation of all the model laws as well as the very early model laws suggested and passed by the Association in the early days. He was a lawyer, and a good one, as well as an outstanding engineer in his field.

Adelbert A. Henderson, who had been a member for many years, was forced to resign his position on the Allegheny County, Pa., Board of Viewers in the summer of 1956 because of ill health and died several months thereafter. He was the first member of the Board chosen from the engineering profession.

Phoenix—A Model Chapter

One of the objectives of A.A.E. is to encourage engineers to participate in civic affairs, and outstanding example of the fulfilment of this purpose is the Phoenix Chapter of the American Association of Engineers.

Phoenix Chapter has always been a most active and cooperati group of engineers, interested in the aims and objectives of the Assoc tion, and deeply concerned with the engineers' responsibility in civic affai Their record of achievement over the years has been outstanding and the public relations exceptionally good. They are a loyal group and have su ported their leaders and workers by active participation in all affai attendance at chapter meetings and social events. Phoenix Chapter, A.A.E is perhaps one of the outstanding groups of engineers in the country, o standing for length of service, loyalty to a cause, scope of activities a variety of worth-while accomplishments.

Phoenix Chapter Performs a Public Service

One November day last fall, the Phoenix Chapter, A.A.E., carried out an exceptionally worthwhile and effective piece of work in doing a survey of recently acquired property by the Border Division of the Salvation Army. Let's let the prime-mover of the project, Vic Housholder, tell the story in his own words.

"I have been a member of the Advisory Board of the Border Division for 30 years. It was natural when the Army needed a survey to establish property lines and corners and topography, that it call on me for the work.

"Since I do not have the necessary surveying equipment any more and rather than burden any one of my friends or firms with the job, I hit on the idea of making it a chapter project, with the result that on Saturday afternoon, November 24th, we did the job.

"Ralph Painter, personal frie of mine and TV photographer f TV Station KOOL, Phoenix, w on hand and the whole deal w shown on TV, the followi Wednesday. Brigadier Henry Koe ner, Commanding officer of the Bo der Division of the Salvation Arm was also present and participated the program and the TV show.

"As it worked out an assignme that would otherwise have been tir consuming and somewhat cost was turned into an enjoyable eve with nice publicity for the chapt as well as the Salvation Arm which was greatly appreciated b cause we now have a capital fu drive going on in the communi We expect to build a $150,000 a ministration building on the pro erty surveyed on 3rd Ave. betwe Filmore and McKinley Street."

Here's a chapter that believes its city, and its local organizatio

nd furthermore is willing and eady to work for it. There are nany ways in which a chapter can end a helping hand—true it takes eadership and vision.

That the engineers and engineering societies of Arizona are a united roup is evidenced by the success of heir annual joint meeting held during the fall of each year. Cooperating in the November, 1956 meeting vere American Institute of Electrical Engineers, American Society of Mechanical Engineers, Arizona Society of Professional Engineers, Illuminating Engineering Society, nstitute of Radio Engineers, American Society of Metals, Arizona Consulting Engineers Association, American Society of Civil Engineers, Arizona Section, and the American Association of Engineers.

A joint luncheon with the American Society of Civil Engineers was eld on November 10, in the Corral oom, Westward Ho, with Cecil C. Overstreet, President, AAE Phoenix Chapter, presiding, and Wilbur . Heckler, President, Arizona Section, ASCE, Chairman of the Day. uncheon and Cocktail hour, courtesy, Allison Steel Company of Phoenix. L. M. Alexander, Asst. General Manager, Salt River Power District, was the speaker, taking as his subject: "Developing the Management Skills of Technical Specialists—The Electrical Engineer."

For the first time the engineers were honored by the presence of two national presidents: Mason Lockwood, A.S.C.E., and Bob Rhinehart, N.S.P.E. The affair ended up with a big dance at one of "way side inns," which proved to be most enjoyable for everyone.

On the Executive Committee of the Participating Societies was Dario Travaini, Past president of Phoenix Chapter. Vic H. Housholder, was general chairman.

Arizona State College

Elected to serve the Student chapter at Arizona State College during the spring months were the following: President, Phelps Terhune; Vice President, Dave Evans; Sec. and Treas., Ginna Cheves.

The boys enjoyed several field trips to plants in the valley and also to Hughes Aircraft in Tucson, the mine, mill and smelter in Superior, and look forward to another good year.

Topics Considered and Discussed by the Phoenix Chapter During the Year

As a suggestion to other groups, here is the schedule of the chapters eetings since last fall, together with the name of the speaker and the subcts presented, also the attendance at each meeting:

eate	Speaker	Subject	Attendance
pt.	6—Vic H. Householder, AAE,	"Rattle Snake Hunt, South Dakota" (colored movie)	37
pt.	20—Gus Rau, Ch. Eng., AAE, Allison Steel Co.,	"Revolving Leaching Drum"	50
ct.	4—Third Game World's Series (TV),	game rained out	32
ct.	18—Wally Alexander, AAE, Pub. Rel. Office, Tel. Co.,	"Direct Long Distance Dialing"	48

Nov. 1—Bill Riley, AAE, Pres. Phoenix Chamber of Commerce, "What's Doing in Arizona" 47

Nov. 15—Dr. Shimming Wang, Math. Prof., Grand Canyon College, "ABACUS" 45

Nov. 29—Del Fisher, Pres., Fisher Contracting Co., "Highway Construction in Guatamala," with slides 66

Dec. 13—W. E. "Bill" Willey, AAE, Arizona State Highway Engineer and Col. in Air Reserves, "Our Security in Europe" 68
This talk followed a three weeks tour (official) of Europe.

Dec. 27—Bevan Jones, Computer Application Supervisor, Arizona Public Service Co., "The UniVac, Its Operation and Use" 48

Jan. 10—Paul Cage, well-known International Artist and Consular Agent of France for Arizona, "The Mechanics of Art" 52

Jan. 24—Dr. Samuel Wick, Director of Arizona State Hospital (Mental), "Community Responsibility to Mental Health and Mental Illness" 88
Director Householder had 45 members of the Arizona Legislature present at this meeting as his guests.

Feb. 7—'Chuck' Haley Traffic Engineer, City of Phoenix, "Pedestrian Traffic Scramble" 50

Feb. 21—Joe Collopy, Former Chief of Cathodic Protection Research, U.S. Bur. Reclamation, and at present chief engineer, Collopy Electric Soil Co., "Reclamation of Alkali Soils by Electrolytic Methods" 50

Mar. 7—Armco's movie—"Iron Ore from Labrador" 43

Mar. 21—Harry L. Hancock, First City Engineer of Phoenix, "Municipal Engineering in Phoenix Fifty Years Ago" 50

April 4—Cavette Roberts, Chief Speaker, Bureau of Phoenix Growth Com., "The Phoenix $70,000,000 Bond Issue" 53

April 18—Lloyd Loraine Pike, AAE, Architect, past president Phoenix Chapter, A.A.E., "Ecclesiastical Architecture" 35

May 2—Harry Stevens, Area Director, "United States Indian Service—Why, What and Where to" 33

May 16—Bob Armstrong, an illustrated talk on "The Guano Tramway," one of the world's most spectacular aerial tramways, extending from the floor of the Grand Canyon to its rim. Mr. Armstrong was resident project engineer on the job while associated with Consolidated Western Steel before his recent move to Phoenix 49

Four Pioneers of Phoenix

ure taken by Vic Householder at the March 21st meeting of the Phoenix Chap- A.A.E. when Harry L. Hancock, first city engineer of Phoenix was the prin- l speaker. For names, see below.

THE MEN IN THE PIONEER PICTURE

On left: Jim Barney, Papago Indian, born at Yuma, graduate engi- from Stanford in class with Herbert Hoover. Retired from Govern- t Land Office in Phoenix. Now columnist of Phoenix newspapers, Inc. Second from left: Earl Parker (AAE), born 1869, retired location neer. Was leading location engineer of Southwest for many years. ated Santa Fe R.R. from Salome to Cadiz, Calif., 1906. Located rail- (never built) from Silver Bell, Ariz., to Port Lobos, Mexico on Gulf alifornia, 1910-11. Located highway from Prescott to Jerome and to na, 1914-16. Located railroad from Mesa to Clemenceau (never built) ames Douglas, 1916-17. Served with Frank Trott (he was an old-time g A.A.E. man) when he was Arizona State Water Commissioner as neer. Retired to private life from this job.

Third from left: Harry L. Hancock, First City Engineer of Phoenix. Fourth from left: Jim Parker (AAE), born March 16, 1881 (brother arl) also outstanding location engineer. Located Pine to Fossil Creek l. Located Armco Lennon flume for Arizona Power Co., down Fossil k, five miles—located Superior-Miami Highway. Retired as District neer for Arizona Highway Department after 37 years.

Chicago Chapter, A.A.E.

Chicago Chapter has held some very interesting meetings during the year, and had some excellent speakers, but perhaps the most interesting and beneficial meetings were those where members were invited to participate in open discussion on subjects of great interest to all engineers at this time, registration, engineering conditions, supply and demand, unionism among engineers, salary schedules, etc. The Association believes that member participation in meetings is most helpful to engineers and encourages the practice.

On May 24th the Patten Tractor and Equipment Company of Bellwood, Illinois (the Chicago representative of Caterpillar Tractor Co.) presented a very fine film on the St. Lawrence Project, entitled "The Eighth Sea."

One of the best films shown during the year was "Our Mister Sun," shown at the March meeting through the courtesy of the Bell Telephone Company. This film, also shown on television, concerns the sun as it is vital to life on the earth, both in the growth of the food which sustains us, and as the source of the fuel which makes our science and technology possible. Ladies were invited to this interesting meeting.

Another excellent movie was shown during the fiscal year entitled "Mining for Nickel," narrated in a most interesting and informative fashion by H. L. Geiger, Supervisor in Charge of Technical Section, Chicago Office, International Nickel Company. Mr. Geiger, member of A.A.E., answered questions cheerfully during the meeting.

Programs during the year were arranged by E. J. Davis, a life member of the Association. B. E. Krieg is president; H. G. Bodie, vice president; George Madgouranis, treasurer, and Bob Neuheimer, secretary. Directors are William H. Boyce, C. A. Patterson and E. J. Davis.

The chapter will begin its 1957-58 activities by a meeting on September 27th when they expect to have the pleasure of touring the printing plant of The Chicago Tribune.

Chaffey College Chapter

The young student engineers are t congratulated. Busy as they are studies and school activities, they do time to say "thank you" to the edi of Professional Engineer for the ous write-ups given their group du the past few years.

Too many times we fail to express appreciation of the kindnesses shown by others—this goes for oldsters as as youngsters. Sometimes we are q to criticize when things are not goin our liking, and slow to show appreci when a favor is extended.

Bob Mickelson, treasurer of Ch College Student Chapter, will ma good engineer. In the first place he k how to write an interesting letter, proud of his group, works hard a studies, but still finds time to enga society activities, and he does show a ciation. Note the following:

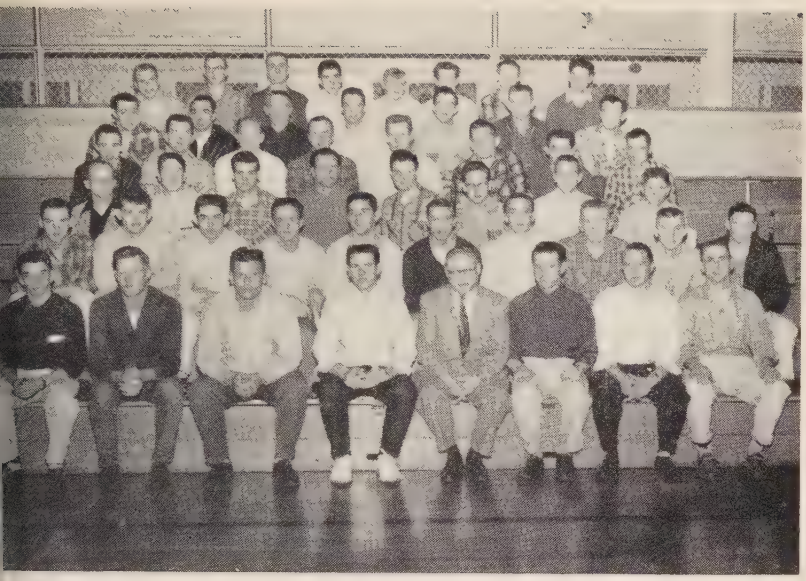
"May I express the appreciation entire membership for your many sonal kindnesses to us over the y We are particularly proud of the fine write-ups we have received in fessional Engineer and we do our best to live up to them! We feel we the very best club on our campus, that it contributes a great deal to education—and fun—as we work to our engineering goal.

"Should you ever be out in Calif we would be so very happy to have stop by Chaffey College so that we express our appreciation directly to . . . and oh yes, we were delighted at Flum's embarrassment when we bro to his attention the sketch about hi the recent issue!"

A grand bunch of engineers, spons by Comdr. Art Flum, advisor.

San Bernardino Valley Colle

The A.A.E. Student group at San nardino Valley College is an active group, headed last year by a grou young engineers determined to see chapter carry out its aims and objec Richard Walter, served as the gr efficient secretary and treasurer.



A.E. Engineers' Club North Idaho Junior College. 1ST ROW: Loren Murphy, b Anderson, Norm Bratley, Clark Frandsen, Dexter Moser, Advisor; Gene es, Neil Kamlin, Roger Hudson. 2ND ROW: Larry Ruesch, Ron Olson, Bud ight, Dale Roske, Joe Hensley, Marvin Stevens, Gary Gaines, Jim Sizemore, ane Heber, Ken Brust. 3RD ROW: Don Van Kleeck, Marlyn Hoffman, rold Rudolph, Russ McMillan, Gale Dolman, Leon Barrett, Roy Hersch, ndal Curtis. 4TH ROW: Chuck Albright, Jack Triplet, Ed. Anderson, John e, Paul Smith, Ken Sewell, Warren Watts, Dick Burton. 5TH ROW: Sam Koon, Norman Lake, Bob Ferger, Ken Hanniner, Gordon Dowel, Groydon nson, Norman Snyder. 6TH ROW: Jim Clouse, Larry Thomas, Wendal utt, Jim Stravens, Henry Fallis, Boyd Romaine, Don Heyr, Jim Peterson.

lorth Idaho Junior College

e membership of the North Idaho r College A.A.E. student chapter ered about 90 engineers this past Heading the group as its president Kenneth Brust. Joe Hensley was resident, and Marvin Stevens, secre- Money matters were handled by e Heber. Dexter H. Moser is the 's advisor.

ew Haven Chapter, A.A.E.

Student group at New Haven Col- held some interesting meetings dur- e fiscal year and in addition visited l local plants, including a tour h the local brewery, the Naugatuck r Company and the Bullard Machine Company. According to its secretary, Chester Malon one of the most interesting and inspiring as well as informative trips was the one the group made through the General Motors Plant in New York.

Pete Bertier served the group as president; Paul Litvenko was vice president and Al Gibbs, recording secretary. John Mariner had charge of the finances and Norman R. Swanson was program chairman. Bill Gore served as chairman of the Advisory group and Robert Reilly, headed the Membership Committee. All in all the boys had a successful year and look forward to a banner year beginning this fall.

Worcester Junior College

David O. Kubly is sponsor of the A.A.E. student chapter at Worcester Junior College, Worcester, Mass. George Yankowskas is president; Robert Young, vice-president; Francis Georgio, treasurer and James Tolos, secretary.

This is indeed an active group of young engineers. Meetings are held every Thursday during the school year. And writes Secretary Tolos, "during the meetings which last one hour, a motion picture is shown on such subjects as the atom and its structure. During the year we have visited the Norton Company, makers of abrasive wheels, and the Worcester County Electric Company. We plan other trips in the Worcester County area. The club has three bowling teams which play against each other for trophies, and we sponsor several dances during the year. Other dances are sponsored jointly with other clubs in the school."

We are glad to see the young engineers getting acquainted with other groups on the campus—the more the better. Engineers need this companionship and this opportunity to broaden their acquaintances and knowledge of other professions.

We look for even a greater year of usefulness for Worcester engineers this coming year.

Wash. D.C. Council

The aims and objectives of the D.C. Council of Engineering and Architectural Societies, is to promote the Engineering, Architectural and Scientific Professions in the Washington Metropolitan area . . . to increase the number of Engineering, Architectural and Scientific students in the Washington Metropolitan area . . . to call attention to the Engineering, Architectural and Scientific societies in the Washington Metropolitan area . . . to publicize the Engineering, Architectural and Scientific career opportunities in the Washington Metropolitan area.

Attendance at the 1957 Engineers and Architects Day sponsored by the Council on February 20, 1957, was approximately 700. The affair was held in the Willa Hotel and at the A.A.E. table were following members: Henry Austin, w is a member of the Advisory Commit of the Council, P. Harry Byerly, Dud R. Buck, Jeremiah Tempone, Cecil Eby, Edwin A. Schmitt, Howell C. Lew and Fred W. Gast.

PAPER-COVER BOOKS BY DOVE PUBLICATIONS

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The Evolution of the Igneous Ro N. L. Bowen, with a new introduc by J. F. Schairer, Carnegie Institu of Washington. $1.85

The Theory of Sound, Vol. 1, by L Rayleigh, honorary fellow of Trin College, Cambridge. Vol. 2, each $

Descriptive Geometry, College Outli Series. A survey of Basic Princip with problems and applications, Steve M. Slaby, Princeton Univers Barnes & Nobles, Inc. (Paper) $

Washington, D.C. Chapter

Henry W. Austin, of Washingt D.C., is president of the Washing Chapter, and Fred W. Gast of Hya ville, Maryland, is vice president. Sec tary of the group is P. Harry Byerly Falls Church, Va. Cecil A. Eby, Be esda, Maryland, serves as treasure

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nents of Engineering Materials, C. . Bacha, Sr. Engr., North American viation; Joseph L. Schwlje, Asso. rof. M.E., Pratt Institute and An- ony Del Mastro, Assoc. Prof., C.E., utgers University. Harper & Broth- s. $6.50.

his comprehensive book is designed students in all branches of engineer- and is well suited to the demands of rgraduate courses in engineering ma- ls, metallurgy, and materials of con- tion. All engineering materials in- ng wood, cements, plastics, rubber, metals, fuels and lubricants have considered in this excellent book.

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hics for Engineers, Warren J. Luz- der, Prof., Engrg. Graphics, Purdue iiversity. Prentice-Hall. $8.65

this book, the author puts emphasis engineering geometry, multiview sentation, basic descriptive geometry, freehand sketchings, with particular tion to perspective pictorials, and nical methods for solving engineer- roblems. Reading material, illustra- and problems have been made to rm to the latest ASA and SAE ards that were available at the

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ents of Gasdynamics, H. W. Liep- n and A. Roshko, Calif. Inst. of h. John Wiley & Sons. $11.00

s new book concentrates on the fundamentals of gasdynamics and overs thermodynamics, basic equa- of motion, fundamentals of high aerodynamics, experimental meth- nd viscous flow, and is intended for the use of students in aero- ls, but is also useful to practicing ers and scientists who work on ms involving the aerodynamics of essible fluids.

Precision Electrical Measurements, Philosophical Lib. $12.00

Twenty-six papers presented and discussed at an international symposium held in 1954 at the National Physical Laboratory, Teddington, Middlesex, devoted to the techniques of precision electrical measurement. The text is generously illustrated with half-tones and line drawings.

Materials of Engineering, Carl A. Keyser, Prof., Met. Engrg., University of Mass. Prentice-Hall $8.00

Practical, fingertip information about the properties and fabrication of metals, alloys, rocks, clay, cements, plastics, rubber, wood and coatings. For convenience the book is divided into three parts; metallic materials, inorganic nonmetallic materials, and organic materials. Practical applications are strongly emphasized throughout the text.

Engineering the Design and Construction of Foundations, F. D. C. Henry, McGraw-Hill Book Co. $9.00

Current practice and possible future trends in the design and construction of engineering foundations in U.S. and Great Britain are presented in this 546-page book. Practicing Engineers charged with the structural design foundations will find this a valuable book.

Design in Civil Architecture, A. E. Richardson, Prof., Arch., Royal Academy, and Hector O. Corfiato, Prof., Arch., Univ. of London. Philosophical Lib. $15.00.

Progress in architecture has always added something to previous knowledge, and the purpose of this work is to provide ideas which will refresh the minds of architects, and at the same time avoid the danger of puerile copyism. An interesting book.

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Bitter, Prof., Physics, M.I.T. J
Wiley & Sons. $8.50

This is a new kind of text for a kind of course in the Physics curricu It provides all students of science engineering with a solid introductio certain abstract concepts, including, ergy, momentum, electric and magn fields, conservation laws, impedance, reactance. The importance of quan tive thinking has been emphas throughout.

Circuit Theory and Design, John
Stewart, Assoc. Prof., El. Engrg., C
Inst. of Tech. John Wiley & Sons. $

An excellent treatise on the sub Avoiding abstract math, the text ap modern network theory to the underst ing of vacuum tubes and feedback tems, and in doing so the author assembled a great deal of inform which has previously been sca throughout the literature in rela incomplete form. Presentation of back amplifiers, oscillators, and s mechanisms is unique.

Radio Electronics, Samuel Seely, I and Head, Dept., E.E., Case Inst of Tech. McGraw-Hill Book Co.

Although one of the main objectiv this book is a study of the important tronic aspects of radio, a much br scope is contemplated. General s block diagrams are discussed before analysis is undertaken; many aspect communication-systems engineering also discussed. Among the new vances covered is a chapter on Info tion Theory.

Chemical Process Industries, 2nd
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ics, paints, explosives, and pesti-
Many new illustrations, hundreds
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rials, Resistance of, 4th ed. Fred
Seely, Prof., Theoretical and Ap-
ed Mech., Emeritus, and James O.
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sentially a new book, featuring a
al change in the usual approach to
ubject and in the selection and or-
ation of the topics covered. The
rs have included some valuable in-
ation on the use of interaction curves
roduced as a means of solving prob-
involving combined loads. An all-
l good book.

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ry and Practice of Lubrication for
gineers, Dudley D. Fuller, Prof.,
E., Columbia University. John
ley & Sons. $10.50

reality this is the first volume to fill
ap between theoretical and applied
ation, and it is also the first book
er a complete treatment in English
drodynamic theory, with emphasis
e engineer's point of view. It sup-
the engineer with all the informa-
e needs to know about lubrication,
the theoretical framework to prac-
application.

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e Treatment, Karl Imhoff, Con-
ng Engr., Essen, Germany, and
don M. Fair, Prof., Sanitary
rg., Harvard. John Wiley & Sons.
)

second edition has been practically
tten, in view of the fact that there
been many new and important de-
ents in sewage treatment since the
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t edition, the new one is concerned
he requirements and practices of
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ared by Timber Engineering Com-
n affiliate of the National Lum-
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Highway Research Board Proceedings, 35th annual meeting, 1956. National Research Council.

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Ordinary Non-Linear Differential Equations, in Engineering and Physic Sciences, N. W. McLachlan, D.S (Engrg.) London, Prof., E.E., Emer tus, Univ. of Ill. Oxford Press. $5.

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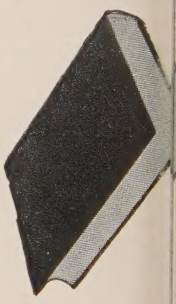

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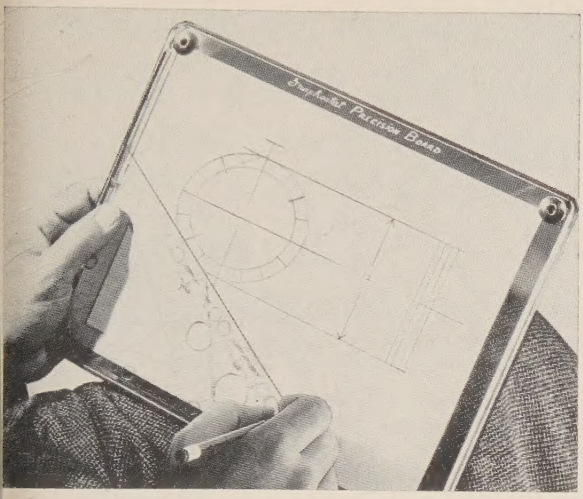

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